REMARKS

The undersigned acknowledges the courteous treatment extended to Mr. Leonard Belkin during the course of an interview held with the Examiner on Sept. 20, 2004. The following incorporates the substance of the interview.

In the Office Action, the Examiner noted that claims 1-46 are pending in the application; that claims 1-21, 45, and 46 have been withdrawn from prosecution; and that claims 22-44 are rejected. By this response, claims 23-27, 29, 31-33, and 35-44 continue unamended; and claims 22, 28, 30, and 34 are amended. Depending claims 47 and 48 have been added. New Claims 49-55 have been also added. In view of the following discussion, the Applicant submits that none of the claims now pending in the application is made obvious under the provisions of 35 U.S.C. §103.

In addition, the Applicant thanks the Examiner for the telephone interview granted on August 12, 2004. During the interview, the Applicant, through his attorney suggested amending claim 28. Thereafter, the Applicant sent, on August 12, 2004, an informal draft of a proposed amendment to claim 28, as discussed during the telephone interview. The Examiner indicated that the informal draft of the proposed amendment to claim 28 would still be rejected.

REJECTION OF CLAIMS UNDER 35 U.S.C. §103

The Examiner rejected under 35 U.S.C. §103(a) claims 22-27 and 29-33 as being unpatentable over Goldsborough (U.S. Patent No. 3,130,556, issued April 28, 1964) in view of Stiller (U.S. Patent No. 3,309,891, issued March 21, 1967); claim 28 as being unpatentable over Goldsborough in view of Stiller and further in view of Bouloy (U.S. Patent No. 4,255,941, issued March 17, 1981); claims 34-41, 43, and 44 as being unpatentable over Goldsborough in view of Stiller and further in view of Giroux et al. (U.S. Patent No.6,622,510, issued September 23, 2003) ("Giroux"); claim 42 as being unpatentable over Goldsborough in view of Stiller and Giroux and further in view of Bouloy. The Applicant respectfully traverses the rejections.

A. Claims 22-27 and 29-33

The Examiner rejected under 35 U.S.C. §103(a) claims 22-27 and 29-33 as being unpatentable over Goldsborough in view of Stiller. The Applicant traverses the rejection.

Goldsborough discloses a method of producing fresh water ice by inserting water into rectangular shaped troughs via notches located on the troughs; and injecting a cooling fluid through tubes located between the rectangular shaped troughs. Each of the troughs has an inclined side relative to the sides of each respective trough. For defrosting, hot gasses are directed through the tubes located between the rectangular shaped troughs. When the ice has reached the proper temperature, a receptacle which houses the troughs swings to allow the ice to fall out of troughs. The incline surface on the troughs helps to facilitate removal of the ice from trough is rotated. Thus, the specific shape of the trough disclosed in Goldsborough is an integral part of the ice formation/removal process disclosed in Goldsborough.

The addition of Stiller does not correct the shortcomings of Goldsborough. For example, Stiller discloses a method and apparatus for making salt water ice slush, as follows:

> *The salt water is conducted into the freezing chamber through the inlet 86 and on contact with the wall 28 of the freezing chamber is rapidly changed into a slush which is elevated through the freezing chamber by the blade or rib 26 of the auger for discharge in a chipped or flaked, but solid, state through the outlet 27.* (Emphasis added). See Stiller at col. 3, lines 33-39.

Thus, Stiller produces frozen salt water chips or flakes. In addition, the salt water slush production method disclosed uses a specifically configured salt water slush making device. Specifically, Stiller uses an auger to force the salt water slush upward and out of the cold chamber. Thus, the auger configuration is integral in removing the salt water slush from the cold chamber.

In contrast, the Applicant discloses and claims a method for making salt water ice in "cubes" or solid segments. Specifically, Applicant's independent claims 22 and 30 as amended recite the steps of producing a single solid segment of salt containing ice at a supercooled temperature in each compartment, with a uniform application of coolant to the underside and sides of the mold, features not found or suggested in Goldsborough or Stiller. This language in the claims is supported in par. 0056 of the published application and elsewhere in the application.

As noted above, one of the features of Applicant's claimed invention is the production of single salt water ice for each of the compartments within the mold. The Applicant submits that

neither Goldsborough nor Stiller or any combination of these references suggest this feature since Stiller is concerned only with a slush. Neither of the references addresses some of the problems solved by the Applicant's invention. For example, neither of the references produces "a single solid segment of salt-containing ice in and conforming in shape to each said compartment".

At least for the reasons given above, the Applicant submits that the Applicant's independent claims 22 and 30 are not rendered obvious by Goldsborough and Stiller either individually or in any reasonable combination. In addition, dependent claims 23-27 and 29 (which depend directly from claim 22); and claims 31-33 (which depend directly from claim 30) are also not rendered obvious by the cited references at least because of their dependency upon respective nonobvious claims. As such, the Applicant requests reconsideration and withdrawal of the rejection of claims 22-27 and 29-33.

B. Claim 28

The Examiner rejected under 35 U.S.C. §103(a) claim 28 (which depends from claim 22) as being unpatentable over Goldsborough in view of Stiller and further in view of Bouloy. The Applicant traverses the rejection.

The Applicant has presented arguments in Section A herein. Because those arguments are also applicable to the instant rejection, the Applicant incorporates those arguments in to the instant section. At least for those reasons already indicated the combination Goldsborough and Stiller do not render Applicant's independent claim 22 obvious. The addition of Bouloy does not correct the shortcoming of Goldsborough and Stiller.

For example, Bouloy discloses a method for making ice. However, in Bouloy, the freezing trays are welded back to back. Thus, the entire bottom portion of any given tray is not directly exposed to the cold (i.e., no direct exposure at the weld points), and is incapable of the uniform application of coolant to the underside and sides of the mold as claimed.

The Applicant's claim 28 as amended recites the first and second upwardly facing surfaces forming an arcuate shaped passageway for coolant. Bouloy's structure, as noted above, is entirely different. In the present invention, the configuration of the coolant passageway in relation to the compartments, is very effective in cooling the salt containing water at a rate sufficiently rapid to prevent desalinization. This configuration does not appear to be suggested in

the art of record.

One of the features of Applicant's invention is a greater uniform distribution of cold in the ice forming process. By exposing the concave bottom in an unimpeded manner, the Applicant is afforded greater control over the chilling process, i.e., there is a substantially uniform distribution of the cold to the concave surface.

As argued above, Goldsborough and Stiller each respectively disclose a specific type of device, having specific ice/slush forming compartment, and method adapted to remove the ice/slush from the ice/slush forming compartment. At least for the reason that Bouloy does not provide direct exposure to an entire concave surface and has weld points, the addition of Bouloy does not render Applicant's claim 28 obvious. Bouloy does not address the problem solved by the Applicant. In addition, Goldsborough, Stiller, and Bouloy each disclose different devices and methods. The Applicant submits that it is unlikely that these references would be combined to produce the Applicant's invention. "A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. W.L Gore& Associated, Inc. V. Garlock, Inc., 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983)." Cited by MPEP 2100-122 (Rev. 1. Feb. 2003).

As such, the Applicant submits that Goldsborough, Stiller, and Bouloy either individually or in any reasonable combination render Applicant's claim 28 obvious. As such, the Applicant requests reconsideration and withdrawal of the obviousness rejection of claim 28.

C. **Claims 34-41, 43, and 44**

The Examiner rejected under 35 U.S.C. §103(a) claims 34-41, 43, and 44 as being unpatentable over Goldsborough in view of Stiller and further in view of Giroux. The Applicant traverses the rejection.

The arguments presented in Sections A and B herein are also applicable with respect to the instant section. As such, and for brevity, those arguments are not repeated and are incorporated into the instant section.

The addition of Giroux does not correct the shortcomings of Goldsborough and Stiller. Specifically, Giroux discloses a method and apparatus for the production of a beer slush. See Giroux at col. 5, line 37. Giroux freezes the outer periphery of a container and scrapes the frozen

beer off of the outer periphery and draws it toward the center of the container. Because beer expands under the cold temperature, a bladder is also present for the expanding beer to escape. The Applicant submits if Giroux were to freeze beer into a single piece the scraping device would be inoperable (unable to move about the inner periphery). Thus, Giroux also does not solve the problem addressed by the Applicant.

In contrast, Applicant's claim 34 recites, in pertinent part:

A method of producing beverage containing segments of ice in which non-water components are substantially uniformly distributed throughout the ice segments comprising the steps of:

pouring water containing beverage components into a horizontal mold divided into separate ice forming compartments;

chilling said mold while in a horizontal position by the uniform application of coolant to an underside and sides of the mold at a sufficient rate of cooling to prevent separation of the water in said mold and produce a single solid segment of frozen beverage in each compartment; and

continuing said chilling until the temperature of the segment of frozen beverage in said mold is between minus 10° F and minus 50° F thereby producing supercooled segments of frozen beverage. (Emphasis added).

In addition, Applicant's claim 44 recites, in pertinent part:

Supercooled segments of ice containing a beverage made by the process of:

pouring water containing a beverage into a horizontal mold divided into separate ice forming compartments;

chilling said mold while in a horizontal position by the uniform application of coolant to an underside and sides of the mold at a sufficient rate of cooling to prevent separation of the water and beverage components in said mold and produce a single solid segment of frozen beverage in each compartment; and

continuing said chilling until the temperature of the frozen beverage in said mold is between minus 10° F and minus 50° F thereby producing

supercooled segments of frozen beverage. (Emphasis added).

As already indicated, one of the advantages of the Applicant's method is the production of a single solid segment of frozen beverage. None of the reference cited by the Examine, either individually or in any reasonable combination render Applicant's independent claim obvious. In addition, dependent claims 35-41, and 43 (which depend directly from claim 34) are also not rendered obvious by the cited references at least because of their dependency upon respective nonobvious claims. As such, the Applicant requests reconsideration and withdrawal of the rejection of claims 34-41, 43, and 44.

D. Claim 42

The Examiner rejected under 35 U.S.C. §103(a) claim 42 as being unpatentable over Goldsborough in view of Stiller and Giroux and further in view of Bouloy. The Applicant traverses the rejection.

The arguments presented in Sections A, B, and C herein are also applicable with respect to the instant section. As such, and for brevity, those arguments are not repeated and are incorporated into the instant section.

The Applicant respectfully submits that none of the references cited by the Examiner, either individually or in any reasonable combination, contains the features recited in Applicant's claim 34. Because independent claim is not obvious in view of the references, it follows that claim 42 which depends from claim 34 contains all of the features of claim 34. As a result, claim 42 is also not rendered obvious by the reference cited by the Examiner. As such, the Applicant requests reconsideration and withdrawal of the obviousness rejection of claim 42.

E. Claims 47 and 48

New claims 47 and 48 depend from claim 28 and are drawn to the passageway constructions shown in Fig. 3 and Figs. 3A and 3B, respectively. Nothing in the art of record appears to suggest this configuration.

F. Claims 49-55

Claims 49-55 are similar to the above-noted amended Claims, except that Claims 49-55

describe freshwater ice cubes and methods of making same. Nothing in the art of record appears to suggest this subject matter. Additionally, the specification supports these Claims.

Conclusion

Thus, Applicant submits that none of the claims presently in the application are obvious under the provisions of 35 U.S.C. §103. Consequently, the Applicant believes that all these claims are presently in condition for allowance. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring the issuance of a final action in any of the claims now pending in the application, it is requested that the Examiner telephone Alfred M. Walker. at (631) 361-8737 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,

Dated: Sept. 23, 2004

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CERTIFICATE OF FAX TRANSMISSION

I hereby certify that the aforesaid amendment was sent by fax to 703-872-9306 on the date indicated below.

Date: September 23, 2004

Alfred M. Walker